AUTODOC CLUB

# How to change rear shock absorbers on **BMW E46 convertible** – replacement guide

## VIDEO TUTORIAL



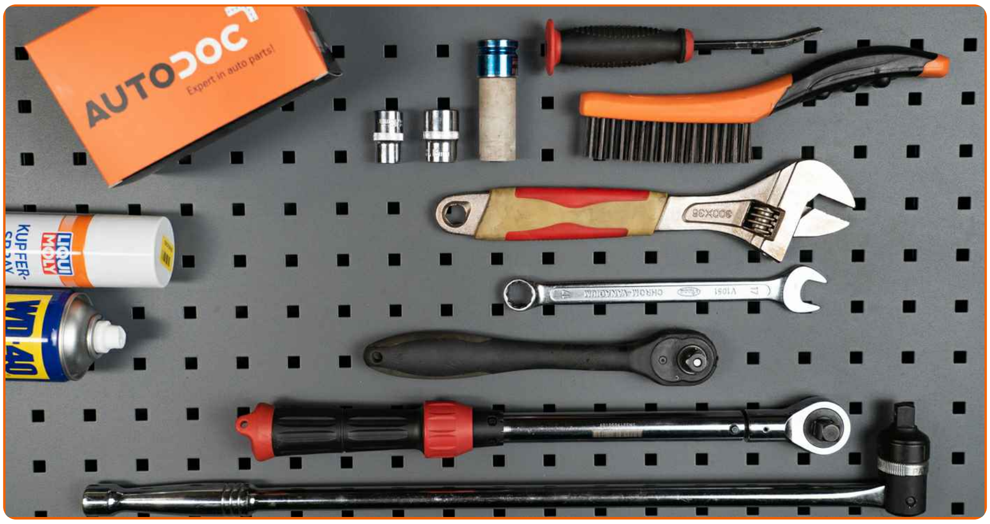

### Important!

This replacement procedure can be used for:
BMW 3 Touring (E36) 320i 2.0, BMW 3 Touring (E36) 328i 2.8, BMW 3 Touring (E36) 318tds 1.7, BMW 3 Touring (E36) 325tds 2.5, BMW 3 Touring (E36) 323i 2.5, BMW 3 Touring (E36) 318i 1.8, BMW 3 Saloon (E46) 318i 1.9, BMW 3 Saloon (E46) 328i 2.8, BMW 3 Saloon (E46) 320d 2.0, BMW 3 Saloon (E46) 323i 2.5, BMW 3 Saloon (E46) 320i 2.0, BMW 3 Coupe (E46) 323Ci 2.5, BMW 3 Coupe (E46) 328Ci 2.8, BMW 3 Saloon (E46) 316i 1.9, BMW 3 Touring (E46) 320i 2.0, (+ 44)

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The steps may slightly vary depending on the car design.

# REPLACEMENT: SHOCK ABSORBERS – BMW E46 CONVERTIBLE. LIST OF THE TOOLS YOU'LL NEED:




- Wire brush
- WD-40 spray
- Copper grease
- Combination spanner #17
- Drive socket # 13
- Drive socket # 18
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Adjustable wrench
- Tap wrench
- Crow bar
- Vice
- Hydraulic transmission jack
- Wheel chock

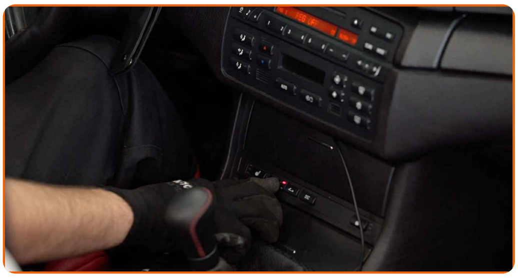
**BUY TOOLS**

Replacement: shock absorbers – BMW E46 convertible. AUTODOC recommends:

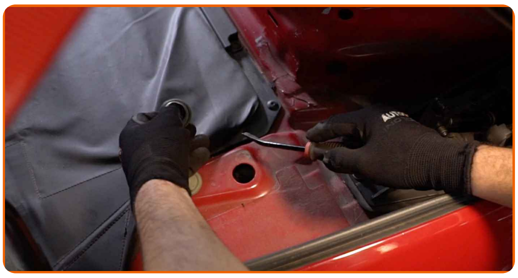
- Both shock absorbers of the rear suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock absorbers of the rear suspension.
- Please note: all work on the car – BMW E46 convertible – should be done with the engine switched off.

## CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

**1** Press and hold the folding roof control switch. Hold the button pressed until you get access to the upper fasteners of the shock absorber.



**2** Remove the shock strut mount caps. Use a crowbar.



**3** Clean the fasteners of the shock absorber upper mount. Use WD-40 spray.



4

Loosen the upper fastener of the shock absorber. Use a drive socket #13. Use a ratchet wrench.



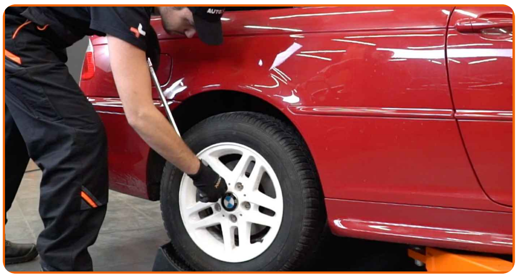
5

Secure the wheels with chocks.



6

Loosen the wheel mounting bolts. Use wheel impact socket #17.



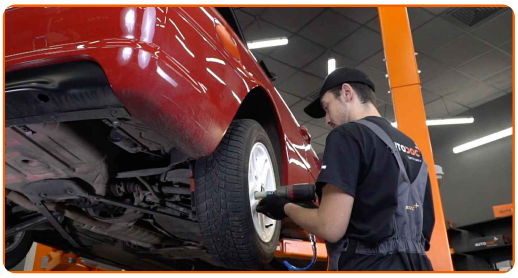
7

Raise the rear of the car and secure on supports.



8

Unscrew the wheel bolts.



## Replacement: shock absorbers – BMW E46 convertible. Tip:

- To avoid injury, hold up the wheel when unscrewing the bolts.

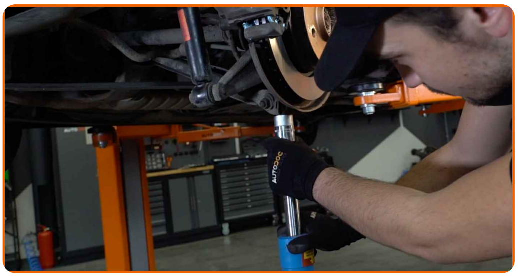
9

Remove the wheel.



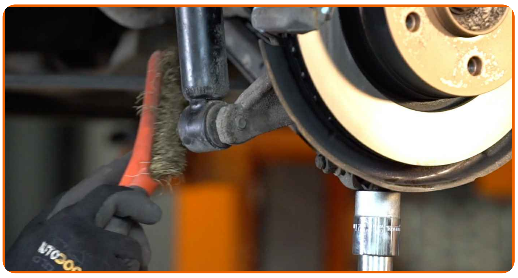
10

Support the arm. Use a hydraulic transmission jack.

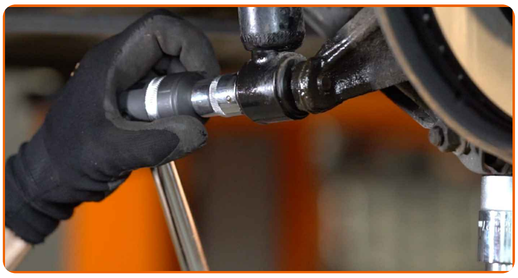


11

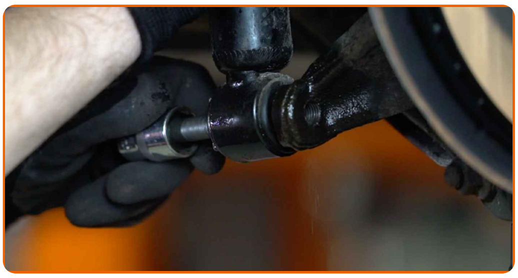
Clean the shock absorber fasteners. Use a wire brush. Use WD-40 spray.



**12** Unscrew the lower fastener of the shock absorber. Use a drive socket #18. Use a tap wrench.



**13** Remove the fastening bolt.



**14** Unscrew the upper fastener of the shock absorber. Use a drive socket #13. Use a ratchet wrench.



## AUTODOC recommends:

- Important! Hold the shock absorber while unscrewing the fastening bolts. BMW E46 convertible

**15** Remove the shock absorber.



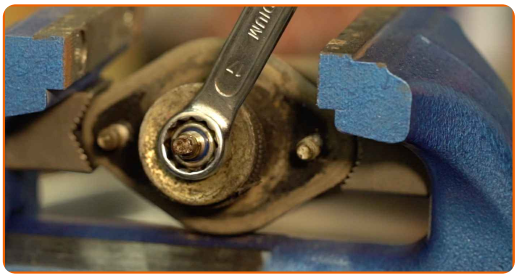
**16** Grip the shock absorber in a vice.



**17** Clean the shock absorber rod fastener. Use a wire brush.



**18** Remove the shock absorber piston rod fastening. Use a combination spanner #17.



**19** Release the vice and take out the shock absorber.



**20** Remove the shock absorber mount, boot and bump stop.



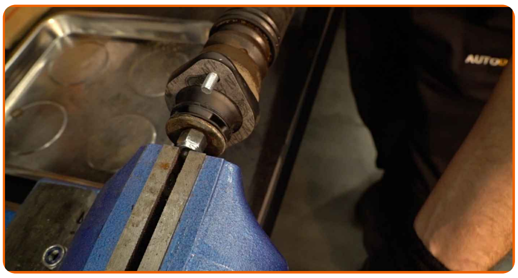
## Replacement: shock absorbers – BMW E46 convertible. AUTODOC recommends:

- Thoroughly examine the shock absorber mount, dust boot, bump stop. Replace them if necessary.
- Before installing a new shock absorber you should pump it manually 3-5 times.

**21** Install the mount, boot and bump stop onto a new shock absorber.



**22** Grip the shock absorber in a vice.



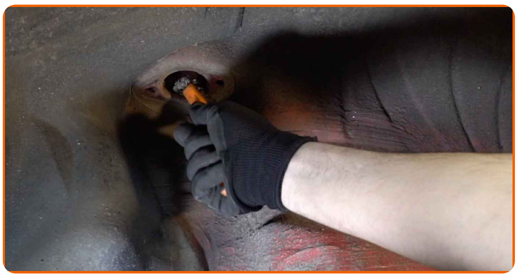
**23** Screw the shock strut piston rod upper fastening. Use a combination spanner #17. Use an adjustable wrench. Use a torque wrench. Tighten it to 20 Nm torque.



**24** Release the vice and take out the shock absorber.



**25** Clean the shock absorber mounting seats. Use a wire brush. Use WD-40 spray.



**26** Place the shock absorber in the wheel arch and secure it.



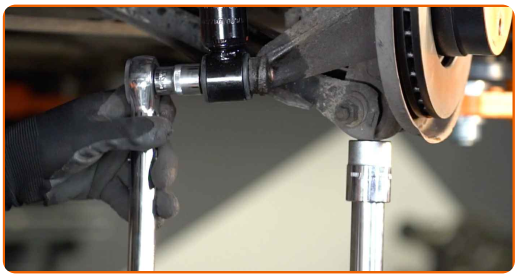
**Replacement: shock absorbers – BMW E46 convertible. AUTODOC experts recommend:**

- To avoid injury, hold the shock absorber cautiously tight when screwing in the fastening bolts.

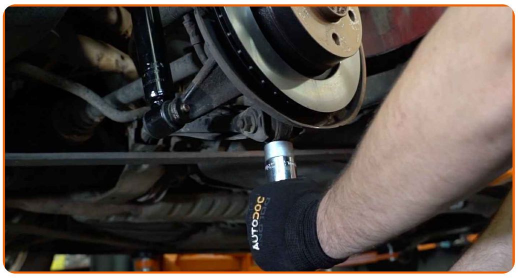
**27** Screw the upper fastener of the shock absorber. Use a drive socket #13. Do not tighten it.



**28** Tighten the lower fastener of the shock absorber. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.



**29** Remove the support from under the arm.



## AUTODOC recommends:

- Replacement: shock absorbers – BMW E46 convertible. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

30

Clean the wheel rim mounting seat. Use a wire brush. Treat the contacting surface. Use copper grease.



31

Install the wheel.



## AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW E46 convertible

32

Screw in the wheel bolts. Use wheel impact socket #17.



33

Tighten the top shock absorber fastening. Use a drive socket #13. Use a torque wrench. Tighten it to 28 Nm torque.



**34** Install the shock strut mount caps.



**35** Lower the car and working in a cross order, tighten the wheel bolts. Use a torque wrench. Tighten it to 120 Nm torque.



**36** Remove the jacks and chocks.



## WELL DONE!

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